

C) Amendments to the claims:

Listing of Claims:

1. (Currently amended) An end launcher of microwave signals with controlled electric field polarization for transitioning between an MMIC and a waveguide connection, comprising:

-- a universal conductive housing having at least a broad wall and a major wall, at least one cavity with a platform for the accommodating said MMIC and control components, having at least one feedthrough mounted in said major wall, each with one metal pin having a first end portion and a second end portion;

-- a conductive plate with a first arm having a first axis, a first length and a first width and a second arm having a second axis, a second length and a second width defining a first broad wall and a second broad wall of said conductive plate, said first arm and second arm defining a thickness and providing an L-shape waveguide probe, one end portion of said first arm having a slot with a slot width and a slot length for the connection to the first end portion of said metal pin of the feedthrough in said universal conductive housing, said L-shape waveguide probe being aligned so that the second axis is substantially parallel to said major wall of the universal conductive housing, the distance between the second axis and said major wall being selected on the basis of frequencies of the microwave signals;

-- a conductive universal launching adapter having a through channel with two long inner walls and two short inner walls, said two long inner walls and two short inner walls defining a cross-

section of said through channel, said universal launching adapter being mounted to the major wall of said universal conductive housing; and

-- a waveguide section with two broad inner walls and two narrow inner walls, said two broad inner walls and two narrow inner walls defining a cross-section of said through channel.

2. (previously presented) An end launcher of microwave signals for transitioning between an MMIC and a waveguide connection in Claim 1, wherein said first length, second length, first width and second width of said L-shape waveguide probe being selected according to operating frequencies of said microwave signals and characteristic impedance.

3. (previously presented) An end launcher of microwave signals for transitioning between an MMIC and a waveguide connection in Claim 1, wherein the distance between said major wall of the universal conductive housing and said second axis is selected to be substantially equal to a quarter of wavelength of microwave signals being excited.

4. (previously presented) An end launcher of microwave signals for transitioning between an MMIC and a waveguide connection in Claim 1, wherein said slot width is slightly greater than a diameter of said metal pin to facilitate attachment of said L-shape waveguide probe to said metal pin.

5. (currently amended) An end launcher of microwave signals transitioning between an MMIC and a waveguide connection in Claim 1, wherein said second axis of the L-shape waveguide probe also being parallel to said broad wall of the universal conductive housing, for the excitation of the microwave signals with electric fields substantially parallel to said ~~reference plane or~~ broad wall of the universal conductive housing.

6. (currently amended) An end launcher of microwave signals for transitioning between an MMIC and a waveguide connection in Claim 1, wherein said second axis of the L-shape

waveguide probe also being perpendicular to said broad wall of the universal conductive housing, for the excitation of the microwave signals with electric fields substantially perpendicular to said ~~reference plane or~~ broad wall of the universal conductive housing.

7. (canceled)

8. (currently amended) An end launcher of microwave signals for transitioning ~~[[a]]~~ between an MMIC and a waveguide connection in Claim 1 wherein said L-shape waveguide probe is fabricated by a micro lithography and etching method from a conductive sheet, a layer of metal is deposited on all walls of said L-shape waveguide probe to increase surface conductivity, said metal for the layer being selected from a group consisted of gold and silver.

9. (currently amended) An end launcher of microwave signals for transitioning between an MMIC and a waveguide connection in Claim 1 wherein an alignment of said L-shape waveguide probe to said metal pin is performed in a precision alignment jig, said precision alignment jig has one preformed shallow cavity to accept said L-shape waveguide probe and a receiving platform to accept said universal conductive housing, said distance between the second arm and the major wall of said universal conductive housing being maintained by separation between an edge of said receiving platform and said shallow cavity, the connection of said L-shape waveguide probe to said metal pin is achieved by welding.

10. (currently amended) An end launcher of microwave signals for transitioning between an MMIC and a waveguide connection in Claim 1 wherein an alignment of said L-shape waveguide probe to said metal pin is performed in a precision alignment jig, said precision alignment jig has one preformed shallow cavity to accept said L-shape waveguide probe and a receiving platform to accept said universal conductive housing, said distance between the second arm and the major wall of said universal conductive housing being maintained by separation between an edge of said receiving platform and said shallow cavity, the connection of said L-shape waveguide probe to said metal pin is achieved by soldering.

[Appl. No.: 10/038,459 Amdt dated: April 16, 2005 Reply to office action of: March. 23, 2005]

D) Drawings Amendments:

There is no drawing amendment.